

The Effects of Vocabulary Learning Gamification on Students' Vocabulary Development

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Abstrak

Dalam mempelajari bahasa asing seperti bahasa Inggris, *vocabulary* (kosakata) memainkan peran penting. Penelitian ini mengevaluasi efektivitas Gimkit dalam meningkatkan *vocabulary* siswa dibandingkan pembelajaran konvensional. Desain penelitian melibatkan dua kelas siswa SMPN 46 Surabaya: kelompok eksperimen menggunakan Gimkit dan kelompok kontrol tanpa perlakuan. Sebuah post-test mengukur peningkatan *vocabulary*. Data dikumpulkan melalui Google Formulir dengan analisis statistik menunjukkan peningkatan signifikan pada kelompok Gimkit, mendukung Gimkit sebagai alat pembelajaran yang efektif. Namun, penelitian ini memiliki keterbatasan seperti fokus pada jenis *vocabulary* tertentu dan sesi terbatas. Penelitian mendatang harus mengeksplorasi lebih banyak fitur gamifikasi seperti Gimkit. Kesimpulannya, Gimkit dapat meningkatkan *vocabulary* dengan efektif. Para pendidik harus mempertimbangkan penggunaan pembelajaran yang di-gamifikasi untuk hasil yang lebih baik. Penelitian lanjutan harus mengeksplorasi alat serupa di berbagai mata pelajaran dan tingkatan kelas.

Kata Kunci: *Gimkit*, gamifikasi, pengembangan/penguasaan kosakata, penelitian eksperimental, pembelajaran konvensional

Abstract

In the study of foreign language like English, vocabulary plays a vital role in it. However, the most learners skipped this vital part due to monotonous repetitions of new words or phrases. This study investigates the effectiveness of Gimkit, a gamified learning platform, in improving vocabulary development. The primary objective was to determine whether Gimkit could significantly enhance students' vocabulary development compared to conventional learning. An experimental research design involved two classes of eighth-grade students' from SMPN 46 Surabaya: experimental group used Gimkit and control group used conventional learning (no treatment). A post-test measured vocabulary improvements. Data were collected using pre-test and post-test multiple-choice questions via Google Forms, with reliability and validity checks. Statistical analysis compared the two groups' performance, showing significant vocabulary improvement in the Gimkit group. This supports the idea that Gimkit makes learning more engaging and effective. However, the study had limitations like focusing only on specific vocabulary types and having limited sessions. Future research should explore more features of gamified tools like Gimkit. In conclusion, Gimkit is an effective tool for vocabulary improvement. Teachers should consider using gamified learning to boost engagement and outcomes. Further research should look into similar tools across different subjects and grades.

Keywords: *Gimkit*, gamification, vocabulary development/mastery, experimental research, conventional learning.

INTRODUCTION

In the study of foreign languages like English, vocabulary has a vital role in it. It is considered essential because it facilitates proficiency in the four language skills: listening, writing, reading, and speaking. Therefore, to communicate well, learners have to comprehend as many words as possible and know how to use them accurately (Huyen & Nga, 2008).

However, most learners skip this vital part when learning English. Learners find learning vocabulary is unappealing, as learners often need to memorize unfamiliar words and their spellings (Nguyen nad Khuatm 2003m as cited in Yip & Kwan, 2006). Yip and Kwan

(2006) reinforce this finding by noting that learners often find the rote memorization of vocabulary challenging.

To solve this problem, there is a need to make or use a different way of learning to keep the learners engaged and motivated. One of many ways to solve this is by using learning media. Learners are evolving, becoming more pragmatic, visual, problem-solving, and computer-savvy, often averse to reading, seeking more materials in less time. Therefore, there is a need to use learning media that appeals visually but also effectively help in learning (Aldrich, 2005).

The need for visually appealing learning media can be easily solved in this modern age. With the existence of

technology and the internet, there are massive amounts of media that can be used as a learning medium. There are several well-known learning media such as Quizziz, Kahoot, and Quizlet. These learning media focused on answering questions like a quiz, with each site offering different styles. For example, Kahoot focuses more on live games where every participant competes in answering the quiz the fastest. The faster you answer correctly, the higher your score than others. Quizziz, on the other hand, focuses more on homework-based quizzes. While it can also be played live, participants only need to focus on answering correctly. However, there is one other online media that combines some mechanics from both Quizziz and Kahoot, which is called Gimkit.

Gimkit is a quiz-based tool for education that gamifies the learning process in order to improve classroom engagement. The goal is for students to work with this software on their own devices, making learning more natural and perhaps enjoyable. Gimkit itself is a digital quiz game that utilized questions and answers to improve teaching and learning (Edwards, 2023). The platform is accessible on various devices operated by students, and is designed and maintained by educators for ease of use (Landers, 2014).

There are several advantages that Gimkit has from other online applications. Gimkit excels at letting students take the lead. This website allows students to design and share their own quiz-style games, encouraging ownership and creativity in the learning process (jotform.com, 2024). While similar to Kahoot, the questions in Gimkit serves to earn “money” which then can used to buy things in the game the participants are playing. The questions in Gimkit cycles in a continuous loop which allows for repetitions, which is perfect to learn vocabulary. Teachers can also set up an asynchronous assignments or games for students to learn at their own pace. Lastly, after a game, teacher also receives a data report on the performance of the students.

There have been several studies that researched the use of Gimkit and its effectiveness or effects on learning English. Saari & Varjonen (2021) conducted a study examining the impact of Gimkit and Kahoot on learning outcomes. The participants consisted of 49 students in their first year of Finnish upper secondary school, categorized into two experimental groups according to their school's class categorization. In two separate 15-minute sessions, experimental group 1 engaged with Gimkit, while experimental group 2 utilized Kahoot. The findings indicate that both Gimkit and Kahoot demonstrate efficacy as tools for enhancing vocabulary acquisition. Nonetheless, it is noteworthy that a control group was not included in this study for comparative analysis.

In Indonesia, a workshop study by Feldee & Faresi (2022) investigated the use of Gimkit and its capabilities in classroom learning. To achieve their results, they

performed a qualitative survey and quantitative questionnaires to collect the data. The participants in this study are arranged into small groups of 10, workshop-style discussions and in-depth debriefing with the study community that has been into digital game-based learning. The quantitative questionnaires are used to collect a more authentic outcome. The workshop consisted of three parts: Experiencing – playing one of Gimkit's modes. Creating - developing question banks in Gimkit; and Reflecting - determining which aspects of language learning materials can be gamified with Gimkit. The findings of this study indicate that Gimkit is practically enjoyed as a language learning platform due to its various game modes and visually engaging style. The participants find it that they will most probably will use Gimkit for their classroom. Although, some questions are still left not answered. How about the effect of Gimkit on a student's vocabulary development? Is it more effective than conventional learning? The mentioned study did not have this data. Furthermore, research that answers these questions has not been done Indonesia.

Vocabulary, which is one of the most basic things people must learn in learning a new language, is very important. People who learn a new language should be encouraged to learn vocabulary (Brooks et al., 2023). Dauletova & Rahimova (2022) stated that lexical knowledge is essential for effective communication and second/foreign language development, while a lack of vocabulary knowledge impedes learning. Anwar & Efransyah (2018) strengthened this statement by pointing out that vocabulary is crucial for improving English proficiency across listening, speaking, reading, and writing skills. Without it, students struggle to express ideas, understand, and communicate effectively, highlighting its importance in language learning.

Vocabulary refers to the understanding of word meanings (McShane, 2005). Based on this definition, vocabulary development means the process of acquiring more understanding of word meanings. Rupley and Rasinki (2019) stated that vocabulary or word knowledge evolves from ignorance to broad understanding, with definitional knowledge being a restricted form. It matures through definitional instances, contributing to text cohesiveness.

The development of vocabulary is linked to the activity of learning to read. McShane (2005) asserted that learning to read involves connecting printed words with oral vocabulary through decoding, which translates symbols into meaningful words, but only if words are already in oral vocabulary. In sum, to learn to read, it is important to know how a word is spoken or voiced to know the meaning of said word.

To know how students develop their vocabulary, there is a necessity to create a method of measuring vocabulary

development and methods on teaching vocabulary. Francis & Simpson (2008) stated that when students learn vocabulary, they might know the definition of a word but they do not know how to use them in multiple contexts. Francis and Simpson also examined about several methods on teaching vocabulary to students. Some of these methods are; Dictionary definitions and synonyms, contextual analysis, keyword studies, and Morphemic analysis.

Nowadays, technologies have been an integral part of our lives. The development of technologies has developed to all range of aspects of lives, one of them being in education. In terms of education, the use of technology has been utilized to make teaching and learning more attractive. There are so many things that was previously only exist in books are now integrated and improved with the use of technology. One example is the integration of dictionary books into digital which make access to it more feasible.

In terms of learning language, there has been quite a lot of improvement to make learning it more interesting. Technological advancements have significantly transformed the landscape of vocabulary acquisition, facilitated by mobile apps, AI, VR, AR technologies, and online platforms. Mobile applications such as Duolingo employ gamification strategies aimed at bolstering user engagement and retention, supported by empirical evidence demonstrating substantial vocabulary expansion (Vesselinov & Grego, 2012). AI-powered platforms like Rosetta Stone offer tailored and adaptive learning experiences (Godwin-Jones, 2021), while online platforms and Massive Open Online Courses (MOOCs), exemplified by Coursera, integrate multimedia and social components to effectively deliver vocabulary instruction (Sokolik, 2014). These innovative tools leverage interactive, personalized, and immersive methodologies, with scholarly research validating their efficacy in enhancing vocabulary acquisition.

According to Huang & Soman (2013) in their book titled "A Practitioner's Guide to Gamification of Education," gamification comprises a framework of design principles, processes, and systems employed to effectively guide, involve, and inspire individuals, groups, and communities toward specific behaviors and goals. To put it in another way, it is a method to create a more engaging way to achieve a goal of a task. Huang and Soman also stated that gamers have a unique trait in which they aspire to be on the verge of what Jane McGonigal describes as an 'epic win' during her TED Talk in 2010. They speculated that in education, this phenomenon can be utilized to make students become more engaged and more productive in learning. This speculation is supported by a study by Hernadijaya (2020) where she researched Duolingo as gamification of language learning. In her research, she sampled thirty-four seventh grade students

which were divided into two groups. She used pre-test and post-test instrument which consist of 30 multiple choice questions which then the data would be analyze using t-test. The result showed that Duolingo as gamification was able to significantly improve the students' vocabulary. In sum, the researcher assumed that gamification is effective to use in learning.

According to Edward (2021), Gimkit is an interactive digital quiz platform that employs question and answer format to facilitate student learning. The platform is accessible via a variety of devices, including students' own smartphones, tablets, and laptops (Feldee & Faresi, 2022).

Gimkit as a learning media has quite a lot of features. Gimkit's basic concept are pretty similar to other online quiz app such as Kahoot, Quizziz, Quizlet, etc. The user can make their own quiz and then use it in a live game, or turn it into asynchronous quiz where people can try to answer the quiz at their own convenient time. However, there are distinct differences in Gimkit that makes it better compared to other apps.

Gimkit offers several advantages over other online quiz platforms like Kahoot, making it a unique and engaging tool for educators and students. Its distinctive feature of awarding in-game currency for correct answers allows players to purchase upgrades or items, adding a strategic layer to the gameplay and enhancing student engagement. Gimkit provides a variety of game modes, such as The Floor Is Lava, Trust No One, and Humans vs. Zombies, which introduce different challenges and keep the gameplay fresh. This variety caters to different learning styles and preferences, unlike Kahoot's primarily single game mode. Additionally, Gimkit allows for asynchronous play, offering flexibility for homework assignments and remote learning, whereas Kahoot focuses mainly on live gameplay.

The gamified elements, extensive customization options, and creative game modes like Draw That further enhance student motivation and learning experiences. Gimkit also provides detailed reports and analytics, helping teachers track student performance and adjust instruction accordingly. These features make Gimkit a versatile and effective educational tool, capable of delivering personalized learning experiences and maintaining high levels of student engagement through its innovative approach to educational gaming.

Gimkit offers a range of features designed to enhance educational engagement and flexibility. Users can create customizable quizzes, known as "kits," incorporating various question types like multiple-choice and text input, suitable for live game sessions or asynchronous learning. The platform includes diverse game modes such as Classic Mode for individual competition, Team Mode for collaborative play, and unique modes like The Floor Is Lava and Trust No One, which add strategic challenges

and social deduction elements. A notable feature is its in-game currency system, rewarding correct answers with money that can be used to purchase upgrades or items, fostering strategic decision-making. Gimkit supports asynchronous play, accommodating flexible learning schedules and remote environments. Detailed reports and analytics empower educators to track student performance and engagement effectively, while extensive customization options allow for tailored quiz creation to meet specific educational objectives. Overall, Gimkit's gamified approach, combined with its varied features, promotes interactive learning experiences that enhance student motivation and learning outcomes.

There are a number of studies on Gimkit as learning media. Feldee & Faresi (2022) used Gimkit as a learning media for Language Classroom. This article focused more on the user's experience in general, from playing one of the game modes, creating questions, and reflecting on which part of language learning materials that can be gamified in Gimkit. The results showed that the users enjoyed their experience in using Gimkit and there is a decent possibility that Gimkit will be used in their classroom. Saari & Varjonen (2021) conducted a longitudinal study affirming the efficacy of using digital games as beneficial tools for language development within formal educational settings. Their research investigated the impact of Gimkit and Kahoot on students' development of vocabulary and their motivational levels.

There have been several studies that discussed whether gamification is better than conventional learning or not. Yip & Kwan (2006) pointed out that learning through online games can lead to better results and long-lasting effect than conventional learning in vocabulary development. Furthermore, students are also motivated to use online games to learn due to the higher degree of autonomy and control they have over their vocabulary learning. Zhonggen (2018) further substantiated this assertion by highlighting the genuine potential of serious gaming in the study of English vocabulary. The game-based approach introduces unique elements such as enjoyment and interaction, which are typically absent in conventional learning techniques.

This study aims to discover the effectiveness of Gimkit as a learning medium in helping learners improve their English vocabulary. The hypothesis tested is whether Gimkit significantly affects students' vocabulary development compared to conventional learning methods. For learners, this research offers insights into new learning media that can enhance their learning experience. For teachers, it provides an alternative teaching method using modern learning media like Gimkit to create more engaging classroom activities. The potential for Gimkit to transform vocabulary learning is immense, offering a

blend of technology and pedagogy that can meet the needs of today's learners.

METHODS

This study aimed to determine the effectiveness of Gimkit as a learning media in improving students' vocabulary knowledge. This study used experimental design to find out the effects of Gimkit and compare it with conventional learning, whether the former is more effective than the latter or not. Experimental research involves a systematic inquiry where the researcher manipulates independent variables, controls for pertinent factors, and examines the impact of these manipulations on dependent variables (Ary et al. (2010), as cited in Widiyaswari, 2016). The experimental design was used to compare Gimkit with conventional learning, examining the impact of these manipulations on dependent variables. Two groups of participants were employed: an experimental group and a control group. Both groups underwent a vocabulary knowledge assessment before administering any interventions. The experimental group engaged in sessions using the Gimkit learning platform, while the control group did not undergo any intervention. The treatment protocol consisted of three sessions, after which both groups underwent a post-test to evaluate the outcomes of the intervention.

The research was conducted quantitatively, using student scores as numeric data. Ary et al., (2010), as cited in Hernadijaya (2020) stated that quantitative research is conducted objectively to obtain numerical data. Participants were two 8th grade classes from SMPN 46 Surabaya, with the same number of students for accurate data collection. The selected classes were divided into two distinct groups: the experimental group engaged with treatment using Gimkit, and the control group did not receive any form of treatment.

The instruments used in this experiment were pre-test and post-test to determine the effect of Gimkit and how well it compares to conventional learning. The pre-test evaluated the students' baseline proficiency in English vocabulary, while the post-test assessed whether the students' knowledge of English vocabulary had a significant change or not. A multiple-choice test with 30 items was administered to 10 students, demonstrating consistency and reliability. The Cronbach's Alpha value was $\alpha = .82$, indicating that it was reliable. The test's validity was assessed by an English Language Education major lecturer, confirming its alignment with the material, confirming its validity.

Data collection involved two sets of numerical data: the pre-test and post-test scores of the students. These data are crucial for addressing the research question: "Is there a substantial impact in students' vocabulary performance following the implementation of Gimkit as a gamification

tool to enhance vocabulary development?" The data collection procedure proceeded as followed below.

First, the independent sample t-test was employed to evaluate and compare the pre-test and post-test scores of both the experimental and control groups. A try-out test was administered to evaluate reliability, with ten students not part of the group samples.

The pre-test was administered to obtain information on the students' vocabulary knowledge in both groups, lasting sixty minutes. The treatment was administered exclusively to the experimental group, while the control group was not given any treatment because their default learning method was using conventional learning. The treatment was conducted for three meetings, with the topic being Environment, in line with chapter three and chapter four of the students' textbook English for Nusantara for eighth grade. After the conclusion of the last treatment, a post-test was conducted for both groups to check their improvement on their vocabulary and whether the treatment is effective or not.

The study employed two types of statistical tests to analyze the obtained data: the independent sample t-test and the paired sample t-test. The independent sample t-test was used to assess differences in performance between the experimental and control groups, while the paired sample t-test was employed to evaluate differences in scores between the pre-test and post-test within each group. As noted by Bevans (2020), the t-test is a statistical method used to compare the means of two groups, commonly applied to test hypotheses to evaluate the impact of a process or intervention on the population or to identify significant differences between groups. To interpret the result of the calculation, Cohen's standard guideline (cited from Hernadijaya, 2020) was used, which measures the magnitude of difference between the two groups.

RESULTS AND DISCUSSION

To evaluate the data, the researcher evaluated students' test scores. These scores were subsequently inputted into IBM SPSS 26. The researcher utilized t-test calculations within SPSS to analyze differences in both pre-test and post-test assessments between the control and experimental groups. The analytical findings are presented below.

First, the researcher examined the result of the pre-test score in both experimental group and control group. The purpose of this research is to figure out whether the experimental and control group has equal ability or not.

Table 1
Independent Sample t-test Statistics (Pre-test)

	Group	N	Mean	Std. Deviation	Std. Error Mean
Scores	exp	30	58.03	20.954	3.826
	ctrl	30	49.60	10.692	1.952

Table 2
Independent Sample t-test (Pre-test)

		Levene's Test for Equality of Variances		t-test for Equality of Means		Sig. (2-tailed)		Mean Difference		Std. Error Difference		95% Confidence Interval of the Difference	
		F	Sig.	t	df							Lower	Upper
Scores	Equal variances assumed	5.984	.017	1.964	58	.054		8.433		4.295		-1.674	17.043
	Equal variances not assumed			1.964	43.142	.056		8.433		4.295		-.227	17.043

According to the tables above, there is no significant difference in scores between the experimental group ($M = 58.03$, $SD = 20.954$) and the control group ($M = 49.60$, $SD = 10.692$), $t(58) = 1.964$, $p = .054$. The effect size of 0.047 indicates a small effect. With a p-value of .054, which exceeds the conventional significance level of .05, it suggests that there is no significant difference between the experimental group and control group.

Second, the researcher compares the pre-test and post-test results of both experimental and control group. The purpose of this section was to determine the groups' improvement following the treatment. The scores were acquired from the pre-test and post-test assessments.

Table 3
Paired Sample t-test Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre_Exp	58.03	30	20.954	3.826
	Post_Exp	70.53	30	15.965	2.915
Pair 2	Pre_Ctrl	49.60	30	10.692	1.952
	Post_Ctrl	54.30	30	15.483	2.827

Table 4
Paired Sample t-test Differences

		Paired Differences		95% Confidence Interval of the Difference	
		Mean	Std. Error	Lower	Upper

		Mean	Std. deviation	Std. Error	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	Pre_Ex	-							
	p -	12.50	15.290	2.79	18.20	6.79	4.47	2	.000
	Post_Exp	0		2	9	1	8	9	
Pair 2	Pre_Ctr								
	l -	-		2.63			-	2	.085
	Post_Ctrl	4.700	14.446	8	10.09	.694	1.78	9	
rl				4		2			

The third analysis compares post-test results from both the control and experimental groups. The researcher evaluates the students' post-test results by comparing their scores from the pre- and post-tests to determine how much their language mastery has improved. This comparison is intended to determine the distinction between those that were taught using Gimkit and those who did not. As with the initial assessment, the researcher employed an independent sample t-test to evaluate the disparity in abilities between students from distinct groups. Detailed results are presented in the accompanying table.

	Group	N	Means	Std. Deviation	Std. Error Means
Scores	exp	30	70.53	15.965	2.915
	ctrl	30	54.30	15.483	2.827

		Levene's Test for Equality of Variances		t-test for Equality of Means		95% Confidence Interval of the Difference	
		Sig.	Mean	Std. Error	Difference		
		(2-tail)	Difference	Difference	Lower	Upper	
F	Sig.	t	df	ed)			

In the preceding chapter, it was outlined that the objective of this study was to ascertain if there exists a notable discrepancy in students' vocabulary scores between those utilizing Gimkit and those employing conventional learning methods. In this study, the researcher speculated two hypotheses; the null hypothesis and alternate hypothesis. The null hypothesis speculated that there is no notable change in the students' score who use Gimkit and they're similar or worse than those who do not use it. For the alternate hypothesis, there is notable change in the students' score who use Gimkit compared to those who do not use it.

According to the paired sample t-test calculation, the two-tailed value of the experimental group is less than 0.05 by having the value 0.00. This means that using Gimkit as a learning media does quite a considerable improvement on students' vocabulary development. This result is also supported by comparison of the mean score of the pre-test and post-test. The mean score for the experimental group was 58.03 before the treatment. Meanwhile, after the process of treatment, the mean score of the experimental group increased to 70.53.

The study was structured into three phases: pre-test, treatment process, and post-test. It involved two sample groups: experimental and control. The primary aim of this research is to examine the efficacy of Gimkit as an educational tool in enhancing students' acquisition of English vocabulary. Therefore, the subsequent section will delve into the analysis conducted on eighth-grade students from a junior high school.

The first one is the analysis the pre-test results. The pre-test was administered to the experimental and control groups to determine their vocabulary knowledge prior to treatment, as well as if the groups were of comparable ability. The findings indicated no significant difference between the experimental and control groups, suggesting both groups had equivalent abilities.

The subsequent analysis centers on the post-test outcomes following the treatment. The findings indicate that the experimental group achieved a higher mean score compared to the control group. The results of the t-test confirm a significant distinction between the experimental and control groups. Moreover, the t-test results highlight notable improvement in scores within the experimental group, suggesting the effectiveness of the administered treatment. This underscores Gimkit's success in enhancing students' vocabulary development. The findings of this result further proved the study by Saari & Varjonen (2021) that Gimkit is a beneficial tool for learning language.

The researcher provided treatment over three meetings. Throughout treatment, the researcher utilized Gimkit games. Before playing the game, the researcher explained some vocabulary on the topic of environment, which is consistent with the current materials that students are learning at school. The researcher gave varied form of texts (news article, dialogue text, posters, etc. and then asked the students about some words in the text, whether the translation, what it means, the synonyms, and/or the antonyms. After that, the researcher explained some more about the words and examples of these words in another sentences. Other than texts, the researcher also gave varied images about actions or things related to environment to the students and asked them to name them. By the end of each session, the researcher used the Gimkit and explained the rules and how to play Gimkit. The results shown above proved Gimkit's effectiveness in enhancing vocabulary development. Students in the experimental group made significant progress and improved their results compared to the control group. This is predicated on the notion that turning the normal, conventional learning into gamification by the use of Gimkit can make students more involved and interested in learning vocabulary. It is undisputed that games provide numerous benefits to students in terms of making learning more effective and engaging. This result is in line with the study by Hernadijaya (2020) which proven the fact that

gamification allows students to assimilate the subject they have just learned while also competing with their peers in an entertaining way.

Furthermore, despite the questions in the live game of Gimkit are repeated multiple times throughout the duration of each game, the students did not feel bored. Usually, repetition is what makes most language learner to stop learning since it was boring and exhausting. In addition, teachers could use Gimkit when teaching vocabulary by creating some various type of entertaining yet effective activities in the classroom. Gimkit provides multiple game modes to prevent the repeated use of the same media from making students bored. This aligns with Feldee & Faresi's (2022) theoretical exploration of Gimkit, which emphasizes its diverse educational applications, including game modes like human vs. zombie and hidden mode, that enhance learning dynamics in language classrooms. By integrating Feldee & Faresi's (2022) theoretical insights, this study further validates Gimkit's role in mitigating boredom associated with repetitive learning tasks while promoting active student participation, teamwork, and leadership skills. Their theoretical framework provides a foundation for understanding how Gimkit can be leveraged to gamify educational content effectively, as demonstrated in practical teaching strategies outlined in their workshop-based approach.

In conclusion, the t-test calculation results for both control and experimental groups revealed a significant difference. In addition, the experimental group improved significantly. Gimkit is statistically proven to be effective in improving the development of vocabulary.

CONCLUSION

Based on the findings of this study, as indicated in the previous chapter, it is evident that there is a significant distinction in vocabulary development between students who used Gimkit (experimental group) and those who did not (control group). The students that used Gimkit also showed a significant increase in their vocabulary, as proven by the t-test result. This means that Gimkit is effective in improving vocabulary development, which is in line with the alternative hypothesis; thus, the alternative hypothesis is fully accepted. On the other hand, the null hypothesis is fully rejected. This research implicates that Gimkit is an effective medium to help learners improve vocabulary development. Furthermore, it suggests that gamification should be used more often and, if needed, be integrated into the curriculum to improve the efficiency of teaching and learning. However, this research also has several limitations. The first limitation is the sample size, as only one junior high school participated in the study. This limited sample size restricts the generalizability of the results to a broader population. Additionally, the research period was relatively short, which may not capture the

long-term effects of using Gimkit on vocabulary development. Future studies should consider larger and more diverse samples and extended periods to validate these findings.

Teachers should utilize more attractive and interesting learning media in teaching vocabulary in the classroom. Gimkit is one medium that can be used to enhance the vocabulary development of students and help them learn vocabulary more effectively and interestingly. Researchers in the future might explore similar research into different skills, grades, topics/materials, instruments, or methods. There exist numerous learning media that are possible to be utilized for gamification of teaching and/or learning vocabulary. In addition, future researchers can also modify more features provided in Gimkit to teach English.

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